AMENDMENTS TO THE CLAIMS

Claims 1-6 (canceled)

7. (New) A passive optical network system comprising:

an optical line termination; and

a plurality of optical network units that are respectively connected to an optical line termination via an optical transmission line; wherein

the optical line termination includes

a database configured to store subscriber recognition information and service details in association with a subscriber,

an issuing unit that, upon detecting a connection with a new optical network unit while performing autonomous ranging, issues a control message to request the new optical network unit to provide subscriber recognition information, and acquires the subscriber recognition information, and

a setting unit that, based on acquired subscriber recognition information, searches the database and specifies the subscriber and the service details, and performs bandwidth setting and connection setting based on specified service details, and

each of the optical network units includes

a storing unit that stores subscriber recognition information input by a subscriber; and

a notifying unit that receives, from the optical line termination, a control message requesting for the subscriber recognition information, and issues a response message that notifies the subscriber recognition information.

8. (New) The passive optical network system according to claim 7, wherein

the subscriber recognition information is a password that specifies the subscriber, and

the control message and the response message are sent and received using any one of a physical layer and a monitor control channel.

9. (New) The passive optical network system according to claim 7, wherein

the subscriber recognition information includes the subscriber's address, name, and other subscriber information, and

the control message and the response message are sent and received using a monitor control channel.

10. (New) A method for connecting a plurality of optical network units included in a passive optical network system to an optical line termination via an optical transmission line, comprising:

the optical line termination preparing a database that is configured to store subscriber recognition information and service details in association with a subscriber;

the optical line termination detecting a connection with a new optical network unit while performing autonomous ranging;

the optical line termination issuing a control message to request the new optical network unit to provide subscriber recognition information, wherein the act of issuing is performed after the act of detecting;

each of the optical network units storing subscriber recognition information input by a subscriber;

each of the optical network units receiving from the optical line termination, a control message requesting for the subscriber recognition information;

each of the optical network units issuing a response message including the subscriber recognition information;

the optical line termination searching the database based on acquired subscriber recognition information to thereby specify the subscriber and the service details; and

the optical line termination performing bandwidth setting and connection setting based on specified service details.

11. (New) The method according to claim 10, wherein

the subscriber recognition information is a password that specifies the subscriber, and

the control message and the response message are sent and received using any one of a

physical layer and a monitor control channel.

12. (New) The method according to claim 10, wherein

the subscriber recognition information includes the subscriber's address, name, and other subscriber information, and

the control message and the response message are sent and received using a monitor control channel.